

recording pits are formed in the area other than the recording track on the land.

Due to this problem, when the recorded information is reproduced, the information from the recording pits other than 5 the recording pits for carrying the information to be essentially reproduced is intermingled into the reflected light of the optical beam for information reproduction, aggravating the C/N ratio (ratio of carrier wave level to noise level) at the time of reproduction, and leading to another 10 problem that the correct information reproduction is not performed.

#### Disclosure of Invention

Thus, this invention has been achieved in the light of 15 the above-mentioned problems, and it is an object of the invention to provide an information recording medium in which the influence of recording interference is reduced to make it possible to narrow the interval between adjacent recording tracks and increase the recording density of information, and 20 an information recording apparatus for optically recording the information on the information recording medium.

In order to achieve the above object, a first invention provides an information recording medium comprising a substrate on which the grooves are formed, a recording layer 25 to which an optical beam is applied; and a cover layer for protecting the recording layer, wherein the thickness of said cover layer is thinner than the thickness of said substrate;

wherein the cover layer, the recording layer and the substrate  
are disposed in this order from the side where the optical  
beam

## CLAIMS

1. An information recording medium comprising:

a substrate on which the grooves are formed;

5 a recording layer to which an optical beam is applied;

and

a cover layer for protecting said recording layer,

wherein the thickness of said cover layer is thinner than  
the thickness of said substrate;

10 wherein said cover layer, said recording layer and said  
substrate are disposed in this order from the side where said  
optical beam is applied; and

wherein the thickness of said recording layer formed in  
an area opposed to said groove and forming a recording track  
15 on which the information is recorded is greater than the  
thickness of said recording layer formed in an area opposed  
to an area between said two adjacent grooves on said substrate.

2. The information recording medium according to claim 1,  
wherein a reflecting layer for reflecting said optical beam  
20 is disposed between said recording layer and said substrate,  
and said recording layer is formed on said reflecting layer  
provided on said substrate by a spin coat method.

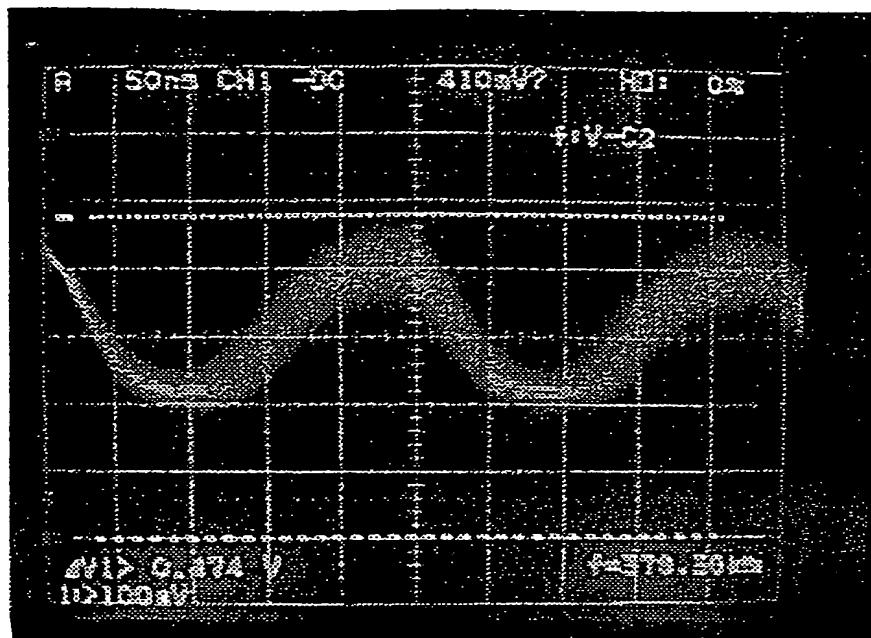
3. The information recording medium according to claim 1  
or 2, wherein the depth of said groove and the thickness of  
25 said recording layer forming said recording track are set up  
such that

-360°<θ0, θ1<-180°, and θ0<θ1

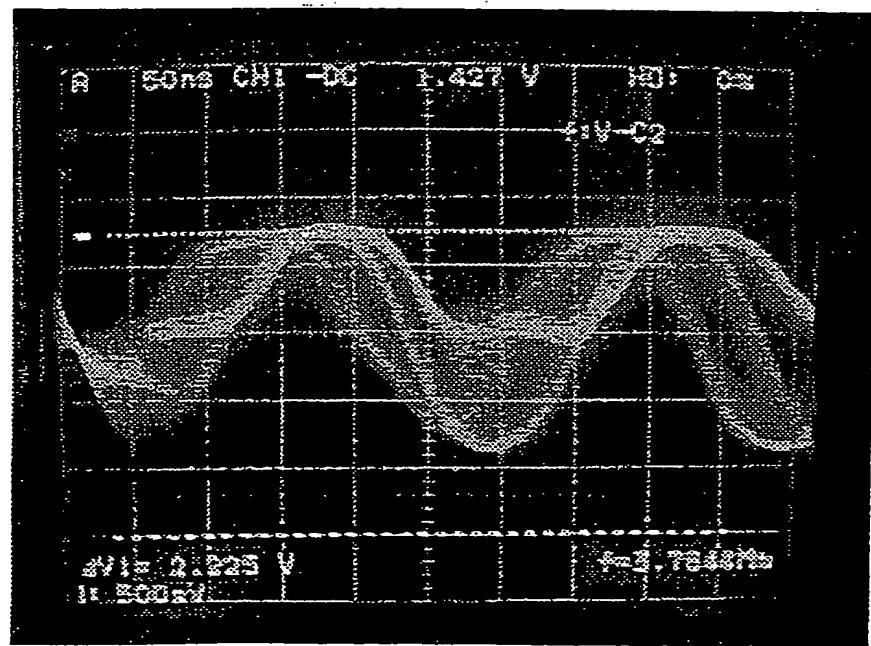
where the phase in the reflected light of said optical beam  
from said recording track on which said information is not

10/520665

FIG. 5



(a)



(b)

BEST AVAILABLE COPY